







Coursera - Creating an AWS EC2 Autoscaling Group using Load Balancer

Generated on December 20, 2023


Summary

Notes	Screenshots	Bookmarks
 3	 12	 0

Task 5:
Creating A Load Balancer

 0:03

it distributed the traffic among the isntances
present in our auto-scaling group

 0:26

Target groups | EC2 Management Console | 18.222.223.223/classify

us-east-2.console.aws.amazon.com/ec2/v2/home?region=us-east-2#TargetGroups:

Successfully created target group: autoscaling-tg

EC2 > Target groups

Target groups (1/1)

Filter resources by property or value

<input checked="" type="checkbox"/>	Name	ARN	Port	Protocol	Target type	Load balancer	VPC
<input checked="" type="checkbox"/>	autoscaling-tg	arn:aws:elasticload...	80	HTTP	Instance	-	vpc-

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0:42

EC2 Management Console | 18.222.223.223/classify

us-east-2.console.aws.amazon.com/ec2/v2/home?region=us-east-2#LoadBalancers:sort=loadBalancerName

Create Load Balancer Actions

Filter by tags and attributes or search by keyword

None found

You do not have any load balancers in this region.

Select a load balancer

https://us-east-2.console.aws.amazon.com/ec2/v2/home?region=us-east-2# © 2008 - 2020, Amazon Internet Services Private Ltd. or its affiliates. All rights reserved. Privacy Policy Terms of Use

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0:50

Create Load Balancer | EC2 Man...18.222.223.223/classify

us-east-2.console.aws.amazon.com/ec2/v2/home?region=us-east-2#SelectCreateELBWizard:

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Select load balancer type

Elastic Load Balancing supports three types of load balancers: Application Load Balancers, Network Load Balancers (new), and Classic Load Balancers. Choose the load balancer type that meets your needs. [Learn more about which load balancer is right for you](#)

Application Load Balancer

HTTPHTTPS

Create

Choose an Application Load Balancer when you need a flexible feature set for your web applications with HTTP and HTTPS traffic. Operating at the request level, Application Load Balancers provide advanced routing and visibility features targeted at application architectures, including microservices and containers.

[Learn more >](#)

Network Load Balancer

TCPTLSUDP

Create

Choose a Network Load Balancer when you need ultra-high performance, TLS offloading at scale, centralized certificate deployment, support for UDP, and static IP addresses for your application. Operating at the connection level, Network Load Balancers are capable of handling millions of requests per second securely while maintaining ultra-low latencies.

[Learn more >](#)

Classic Load Balancer

PREVIOUS GENERATION

for HTTP, HTTPS, and TCP

Create

Choose a Classic Load Balancer when you have an existing application running in the EC2-Classical network.

[Learn more >](#)

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us-east-2.console.aws.amazon.com/ec2/v2/home?region=us-east-2#V2CreateELBWizard?type=application:

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1. Configure Load Balancer2. Configure Security Settings3. Configure Security Groups4. Configure Routing5. Register Targets6. Review

Step 1: Configure Load Balancer

Basic Configuration

To configure your load balancer, provide a name, select a scheme, specify one or more listeners, and select a network. The default configuration is an Internet-facing load balancer in the selected network with a listener that receives HTTP traffic on port 80.

Name

autoscaling-lb

Scheme

☒ Internet-facing☐ Internal

IP address type

IPv4

Listeners

A listener is a process that checks for connection requests, using the protocol and port that you configured.

Load Balancer Protocol	Load Balancer Port
HTTP	80

Add listener

Availability Zones

Specify the Availability Zones to enable for your load balancer. The load balancer routes traffic to the targets in these Availability Zones only. You can specify only one subnet per Availability Zone. You must specify subnets from at least two Availability Zones to increase the availability of your load balancer.

Cancel

Next: Configure Security Settings

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Step 1: Configure Load Balancer

Add listener

Availability Zones

Specify the Availability Zones to enable for your load balancer. The load balancer routes traffic to the targets in these Availability Zones only. You can specify only one subnet per Availability Zone. You must specify subnets from at least two Availability Zones to increase the availability of your load balancer.

VPC ⁱ vpc-ca5df1a1 (172.31.0.0/16) (default)

Availability Zones

- ☒ us-east-2a subnet-884793e3
IPv4 address ⁱ Assigned by AWS
- ☒ us-east-2b subnet-f15f528b
IPv4 address ⁱ Assigned by AWS
- ☒ us-east-2c subnet-b84134f4
IPv4 address ⁱ Assigned by AWS

Add-on services

Additional AWS services can be integrated with this load balancer at launch when you enable them below. You can also add these and other services after your load balancer is created by reviewing the "Integrated Services" tab for the selected load balancer.

AWS Global Accelerator ☐ Create an accelerator to get static IP addresses and improve the performance and availability of your

Cancel Next: Configure Security Settings

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1:45

after selecting AZ's click next

1:50

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Step 1: Configure Load Balancer

IPv4 address ⁱ Assigned by AWS

☒ us-east-2c subnet-b84134f4
IPv4 address ⁱ Assigned by AWS

Add-on services

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AWS Global Accelerator ☐ Create an accelerator to get static IP addresses and improve the performance and availability of your application. [Learn more](#)
[Additional charges apply](#)

Your Accelerator will be created with the following name that you can customize. Once your Accelerator is created you can manage it from the Global Accelerator console.

Accelerator name

Maximum 64 characters. Letters and numbers only.

Tags

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aws

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1. Configure Load Balancer

2. Configure Security Settings

3. Configure Security Groups

4. Configure Routing

5. Register Targets

6. Review

Step 2: Configure Security Settings

⚠

Improve your load balancer's security. Your load balancer is not using any secure listener.

If your traffic to the load balancer needs to be secure, use the HTTPS protocol for your front-end connection. You can go back to the first step to add/configure secure listeners under [Basic Configuration](#) section. You can also continue with current settings.

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aws

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1. Configure Load Balancer

2. Configure Security Settings

3. Configure Security Groups

4. Configure Routing

5. Register Targets

6. Review

Step 3: Configure Security Groups

A security group is a set of firewall rules that control the traffic to your load balancer. On this page, you can add rules to allow specific traffic to reach your load balancer. First, decide whether to create a new security group or select an existing one.

Assign a security group:

Create a new security group

Select an existing security group

FilterVPC security groups

Security Group ID	Name	Description	Actions
sg-07eca13125f569846	AutoScaling-Security-Group-1	AutoScaling-Security-Group-1 (2020-09-04T19:44:08.635Z)	Copy to new
sg-3ce67640	default	default VPC security group	Copy to new
sg-069fe083ac17e2f2f	launch-wizard-1	launch-wizard-1 created 2020-09-03T20:08:36.525+00:00	Copy to new
sg-09b7e925197dcde9b	launch-wizard-2	launch-wizard-2 created 2020-09-04T17:50:35.943+00:00	Copy to new

CancelPreviousNext: Configure Routing

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aws

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1. Configure Load Balancer2. Configure Security Settings3. Configure Security Groups4. Configure Routing5. Register Targets6. Review

Step 4: Configure Routing

Your load balancer routes requests to the targets in this target group using the protocol and port that you specify, and performs health checks on the targets using these health check settings. Note that each target group can be associated with only one load balancer.

Target group

Target group

New target group

New target group

Existing target group

Name

Target type

Instance

IP

Lambda function

Protocol

Port

80

Health checks

Protocol

Path

/

Advanced health check settings

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aws

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Target group

Target group

Existing target group

Name

autoscaling-tg

Target type

Instance

IP

Lambda function

Protocol

Port

80

Health checks

Protocol

Path

/classify

Advanced health check settings

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1. Configure Load Balancer2. Configure Security Settings3. Configure Security Groups4. Configure Routing5. Register Targets6. Review

Step 6: Review

Please review the load balancer details before continuing

Load balancer

Name

autoscaling-lb

Scheme

internet-facing

Listeners

Port:80 - Protocol:HTTP

IP address type

ipv4

VPC

vpc-ca5df1a1

Subnets

subnet-884793e3, subnet-f15f528b, subnet-b84134f4

Tags

Edit

Security groups

Security groups

sg-07eca13125f569846

Edit

Routing

Target group

Existing target group

Target group name

autoscaling-tg

Port

80

Target type

instance

Protocol

HTTP

Health check protocol

HTTP

Path

/classify

Health check port

traffic port

Healthy threshold

5

Unhealthy threshold

2

Timeout

5

Edit

CancelPreviousCreate

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Load Balancer Creation Status

Successfully created load balancer

Load balancer autoscaling-lb was successfully created.
Note: It might take a few minutes for your load balancer to be fully set up and ready to route traffic, and for the targets to complete the registration process and pass the initial health checks.

Suggested next steps

Discover other services that you can integrate with your load balancer. Visit the **Integrated services** tab within autoscaling-lb

Consider using AWS Global Accelerator to further improve the availability and performance of your applications. [AWS Global Accelerator console](#)

Close

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